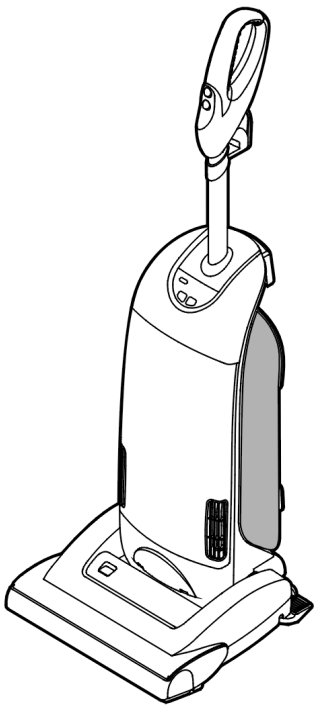
Order Number MAC0804001CE

Service Manual

Vacuum Cleaner

MC-UG787-00



Model	MC-UG787-00
Power Source	AC 120V (60 Hz)
Power Consumption	12.0 Amps
Cord Length	35 Ft.
Vac Gauge	Yes
Headlight	Yes
Attachments-Tools-On-Board	Yes
Weight	20.0 lbs.

Specifications are subject to change without notice for further improvement.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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CONTENTS

Page

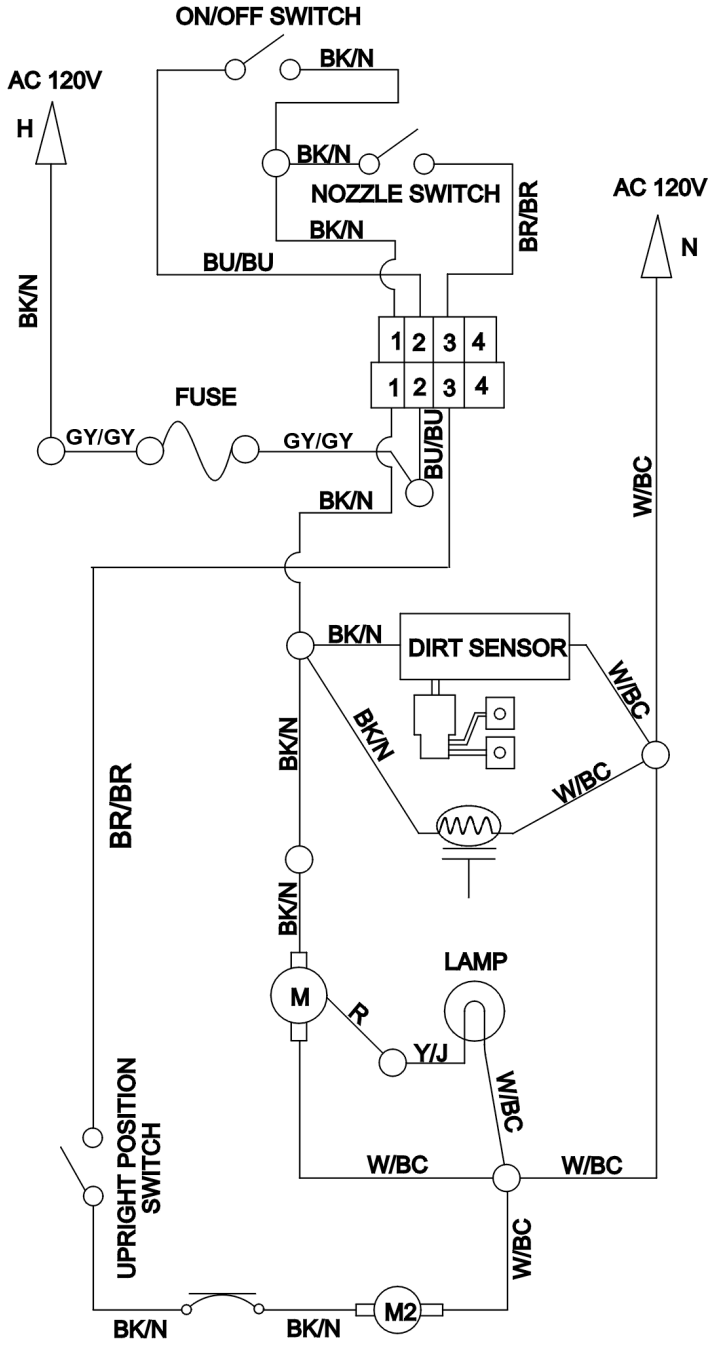
1 WIRING DIAGRAM AND DRAWING 3
1.1. Wiring Diagram 3
1.2. PICTORIAL DIAGRAM 4
2 EXPLODED VIEW AND PARTS LIST 6
2.1. Body 6
2.2. Fan Motor 8
2.3. Nozzle Housing 9
2.4. Handle and Attachments 11
2.5. Packing Materials 12
3 SERVICE PROCEDURES - BODY 13

Page

3.1. Power Cord Replacement 13
3.2. Motor Replacement 13
3.3. Motor Protector Replacement 13
3.4. Headlight Bulb Replacement 14
4 SERVICE PROCEDURES - NOZZLE 15
4.1. Nozzle cover 15
4.2. Agitator / Belt Replacment 15
4.3. Belt 16
4.4. Nozzle Motor 17
4.5. Overload Protector 18

1 WIRING DIAGRAM AND DRAWING

1.1. Wiring Diagram



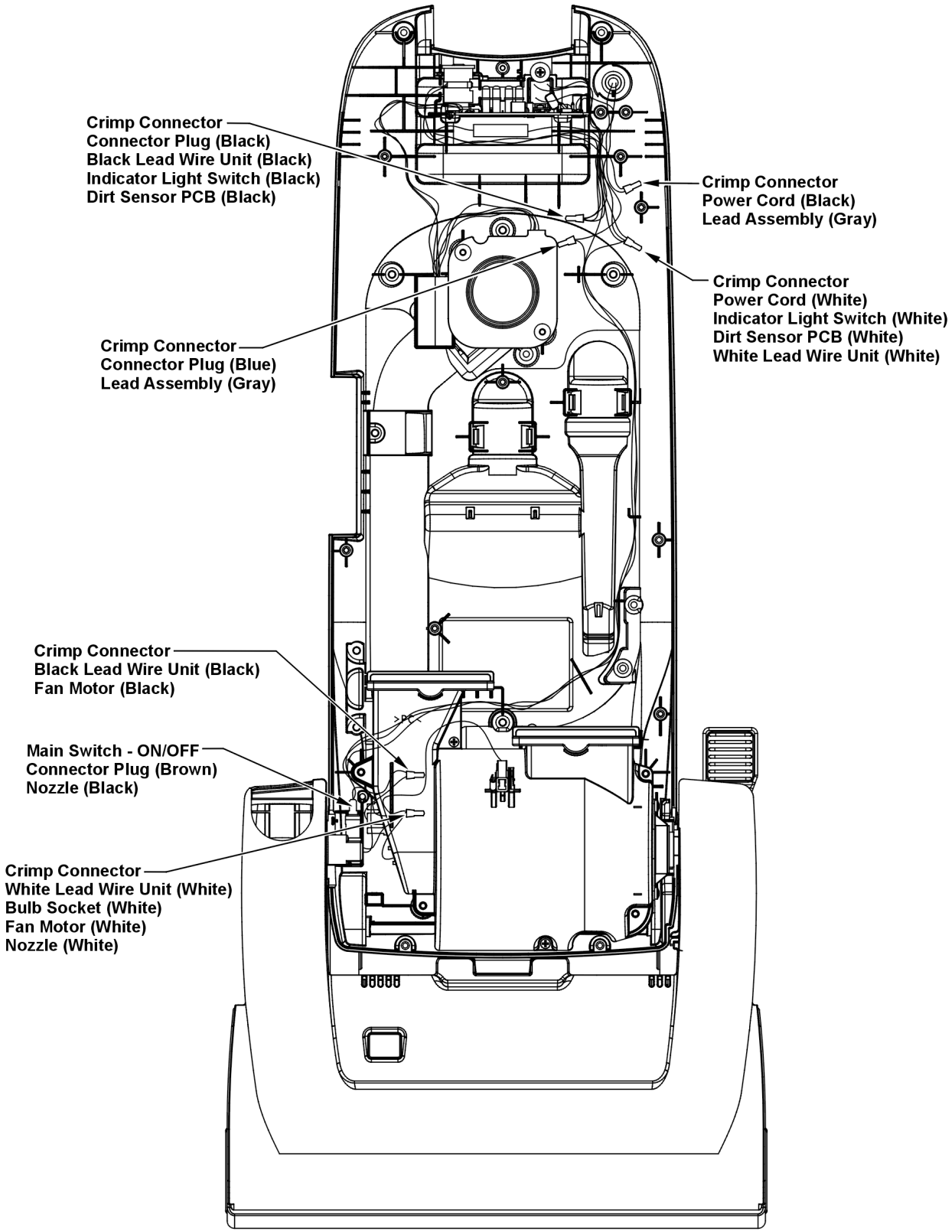
1.2. PICTORIAL DIAGRAM

NOTE:

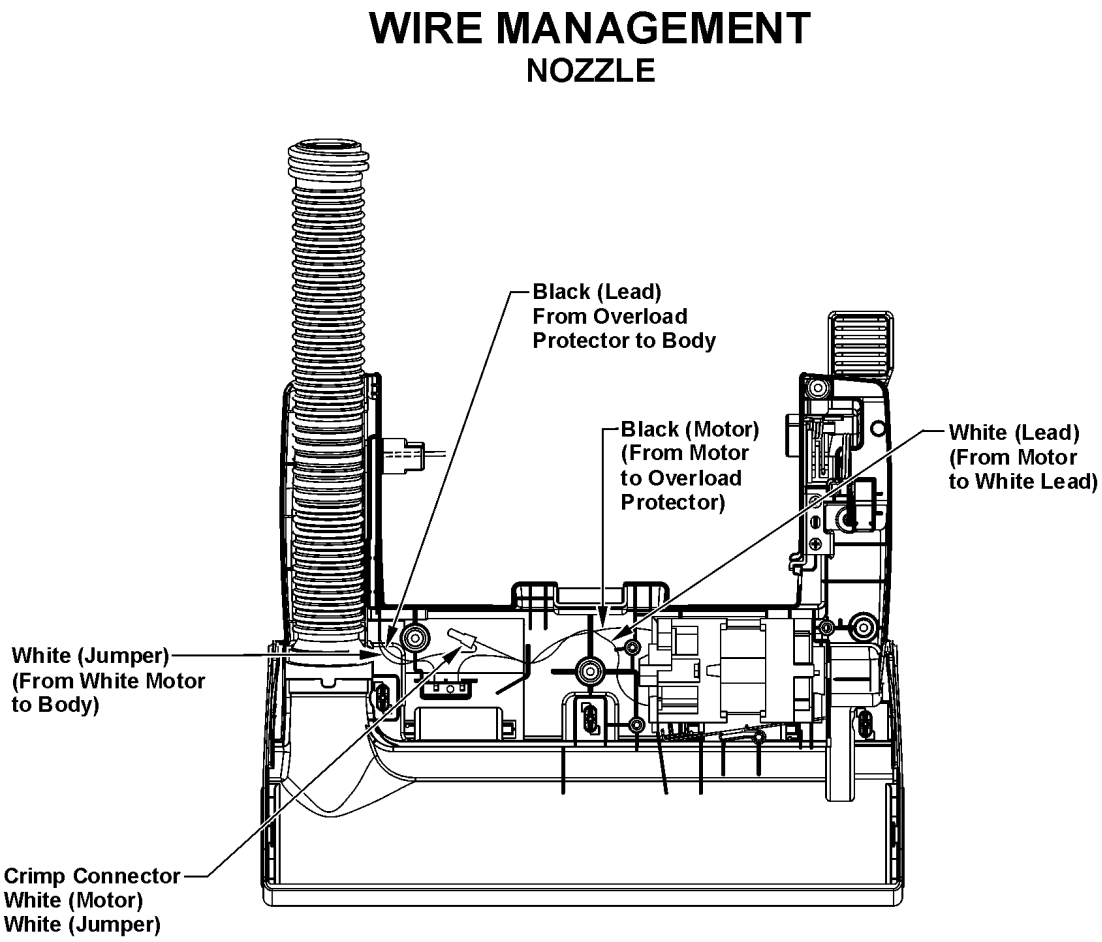
For general servicing, it is necessary to eliminate pinching of any wire during reassembly. After servicing any electrical component or electrical enclosure, the unit should be reassembled and checked for dielectric breakdown or current leakage.

Use part number AC79FCWZZ000 (FIBERGLASS CLOTH TAPE) whenever original tape is removed.

1.2.1. Body



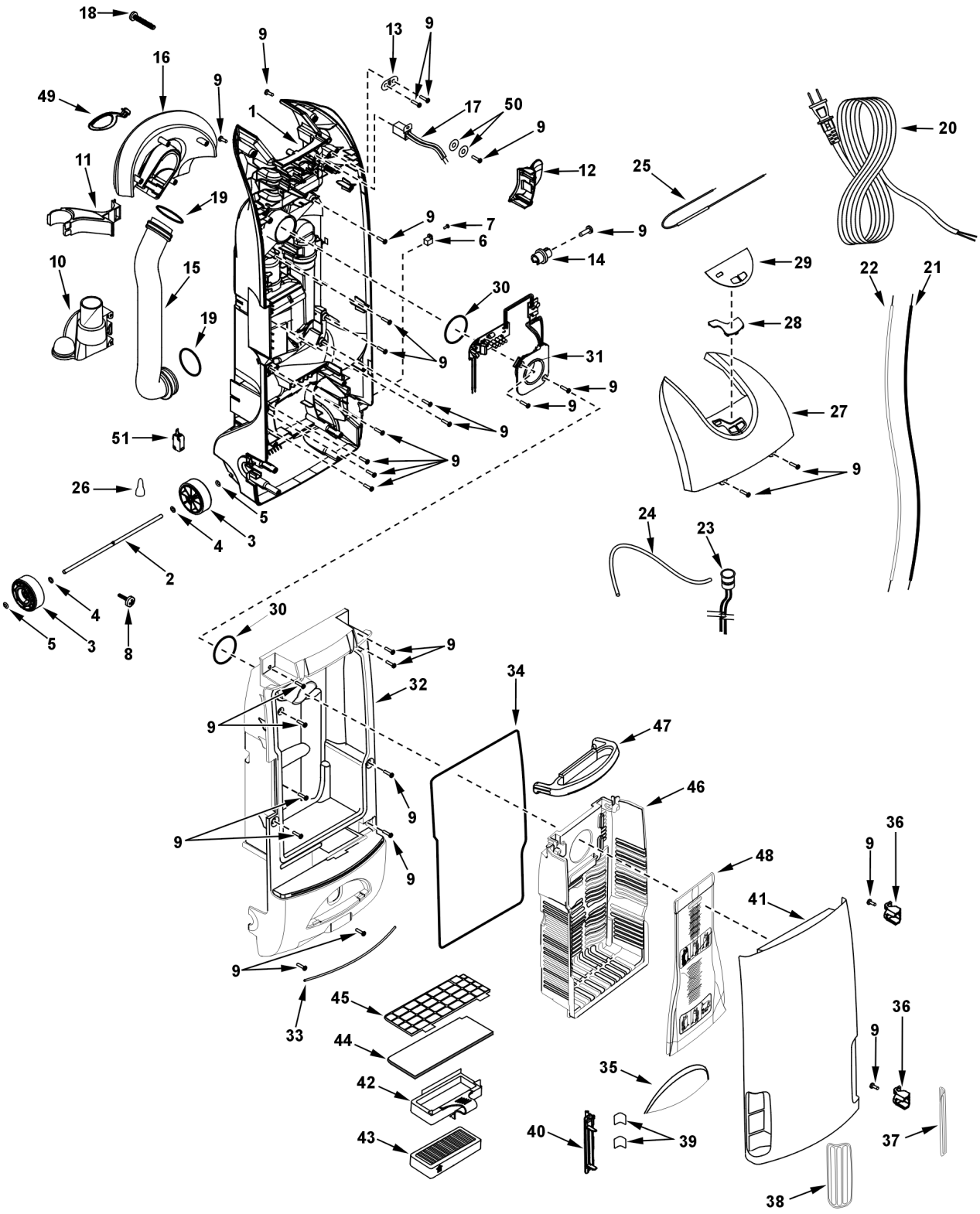
1.2.2. Nozzle


WIRE MANAGEMENT
NOZZLE
Black (Lead)
From Overload
Protector to Body
Black (Motor)
(From Motor
to Overload
Protector)
White (Lead)
(From Motor
to White Lead)
White (Jumper)
(From White Motor
to Body)
Crimp Connector
White (Motor)
White (Jumper)

2 EXPLODED VIEW AND PARTS LIST

2.1. Body

2.1.1. Exploded View

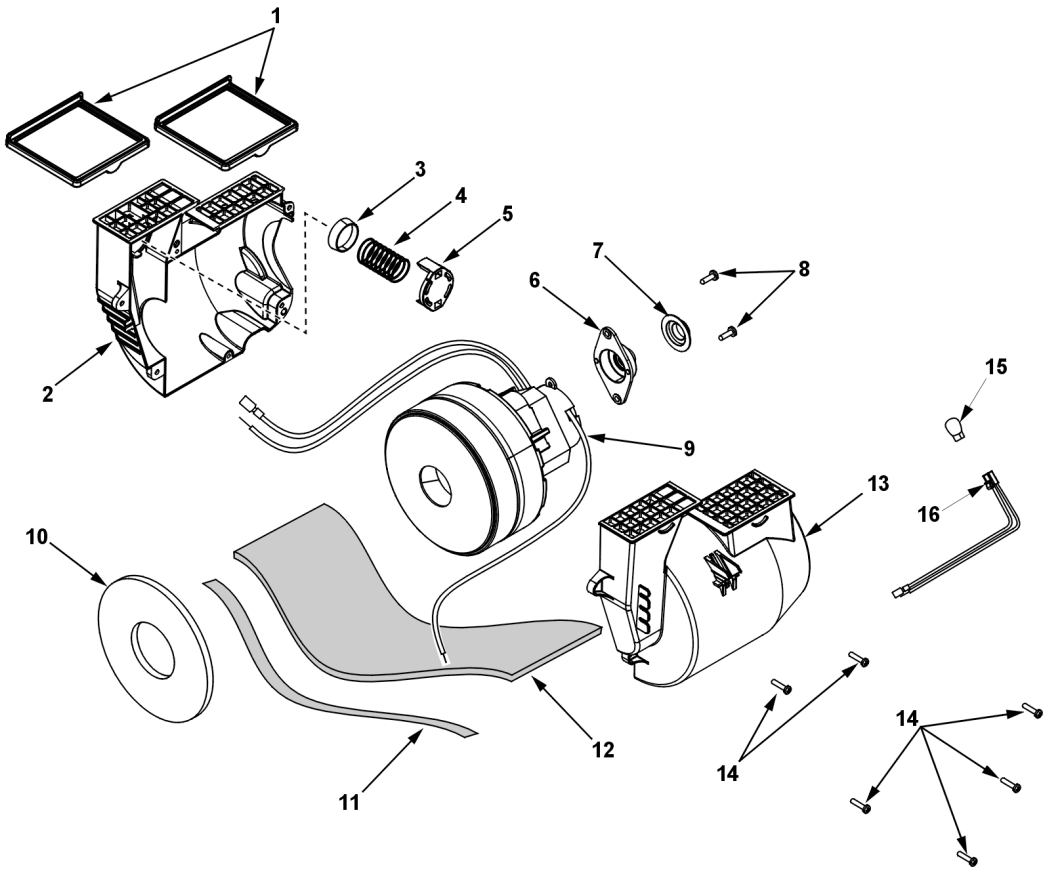


2.1.2. Parts List (Body)

Ref. No.	Part No.	Part Name & Description	Quantity	Remarks
1	AC40KDFWZV07	DUST COMPARTMENT	1	
2	AC16CDDWZ000	ROLLER SHAFT	1	
3	AC99CBSAZV06	WHEEL UNIT	2	
4	AXWG6E115FY	WASHER	2	Shipped 10 per package
5	AC74SUSZ00	STOPPER WHEEL	2	Shipped 10 per package
6	AC83DDAAZU00	LOCKING CAM	1	
7	AXTS3+8BFY	SCREW	1	Shipped 10 per package
8	AC68AZAZ00	SCREW, LOWER PLATE	1	Shipped 10 per package
9	AXTN4+16BFY	SCREW	32	Shipped 10 per package
10	AC70PDDWZV07	WAND HOLDER	1	
11	AC32RDDWZV07	ATTACHMENT HOLDER	1	
12	AC24PDDWZV07	HOSE FITTING (HOSE SUPPORT)	1	
13	AMC62E-J20	CORD STOPPER (C62EJ2)	1	
14	AC13ECRCZ000	NUT (NOZZLE SPRING)	1	
15	AC52PDDWZV07	CONNECTOR PIPE	1	
16	AC23PDDWZV07	HOSE HOLDER	1	
17	AC45VDFWZ000	CONNECTOR PLUG UNIT	1	
18	AXTN4+45BFY	SCREW	1	
19	AC74EDDWZ000	SEAL (AIR PATH)	2	
20	AC97EAACZV06	POWER CORD 35′	1	
21	AC85GDDWZ000	BLACK LEAD WIRE UNIT	1	
22	AC85WDDWZ000	WHITE LEAD WIRE UNIT	1	
23	AC96MAKTZ000	INDICATOR LIGHT SWITCH	1	
24	AC62PAKTZ000	TUBE VAC SWITCH	1	
25	AC99WCJCZ000	LEAD ASSEMBLY FUSE	1	
26	AMC-1CTCE23	WIRE NUT	6	Shipped 10 per package
27	AC03EDFWZG0S	SWITCH COVER (PAINTED)	1	
28	AC08MDFWZ000	INDICATOR WINDOW	1	
29	AC21TDFWZ000	ORNAMENTAL PLATE	1	
30	AC64HARTZ000	SUCTION INLET PACKING	2	
31	AC88GDFWZ000	PCB FINAL ASSEMBLY	1	
32	AC60KDFWZG0S	DUST COVER (PAINTED)	1	
33	AC66KDDXZ000	DUST COMPARTMENT PACKING	1	
34	AC66KCRCZ000	DUST COVER PACKING	1	
35	AC21HDDWZ000	WINDOW	1	
36	AC44HDDWZV07	LID HOLDING BRACKET	2	
37	AC28LDDXZV07	AIR OUTLET GUIDE	1	
38	AC28LDDWZV07	AIR OUTLET GUIDE	1	
39	AC18DDDWZ000	SPRING, RELEASE BUTTON	2	
40	AC15KDDWZM0H	FASTENER	1	
41	AC48HDDWZGUS	COVER (DECO)	1	
42	AC42KDDWZM0H	FILTER CASE	1	
43	AC38KBRMZ000	EXHAUST FILTER - HEPA	1	
44	AC37KDDWZ000	FILTER SECONDARY (FOAM)	1	
45	AC32KDDWZV07	FILTER SUPPORTER	1	
46	AC03KDDWZV07	BAG BRACKET	1	
47	AC64BDDWZM0H	HANDLE	1	
48	AC16KDABZ000	DUST BAG	1	
49	AC02HDDWZV07	COVER LID	1	
50	AMC58B-F70	WASHER	2	Shipped 10 per package
51	AC98EYUZ00	ON/OFF SWITCH	1	

2.2. Fan Motor

2.2.1. Exploded View

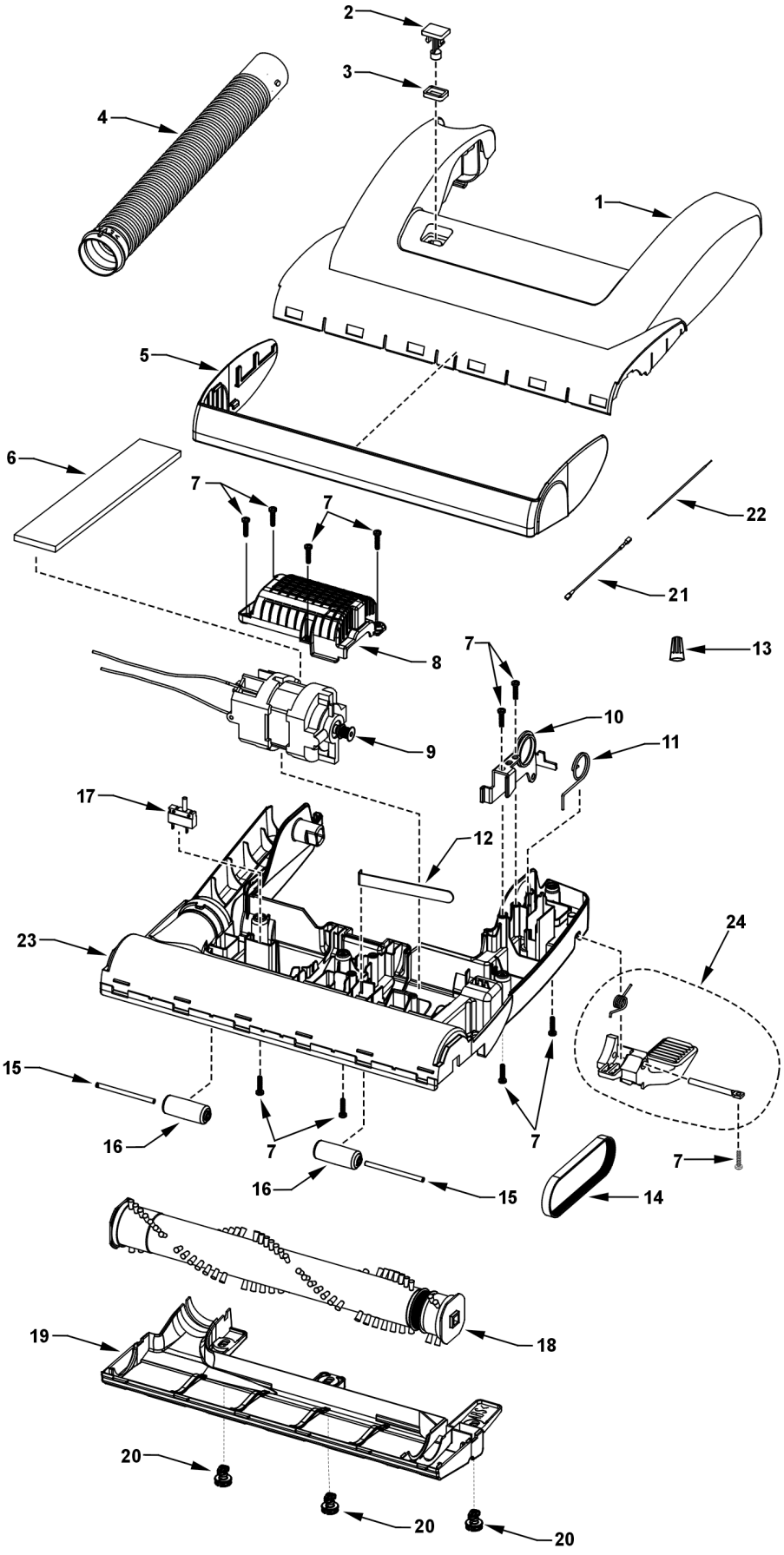


2.2.2. Parts List (Packing Materials)

Ref. No.	Part No.	Part Name & Description	Quantity	Remarks
1	AC45LDDWZV07	AIR OUTLET PACKING	2	
2	AC55LDDWZU01	AIR GUIDE RIGHT	1	
3	AC69KJMZV06	PROTECTOR	1	
4	AC70KCNFZG00	PROTECTOR SPRING	1	
5	AC68KAJDZV06	PROTECTOR CASE	1	
6	AC25SDFWZ000	FLANGE	1	
7	AC03FDFWZ000	MOTOR SUPPORT RUBBER	1	
8	AXTN4+8JFY	SCREW TAPTITE	2	Shipped 10 per package
9	AC92FDFWZ000	FAN MOTOR UNIT	1	
10	AC4154151	SEAL-IMPELLER	1	
11	AC39ADDWZ000	BODY PACKING-RIGHT	1	
12	AC99GAMMZ00	NOISE SUPPRESSOR	1	
13	AC54LDDWZU01	AIR GUIDE LEFT	1	
14	AXTN4+16BFY	SCREW	6	Shipped 10 per package
15	AC28GBKHZ000	BULB	1	
16	AC93HCHDZ000	BULB SOCKET	1	

2.3. Nozzle Housing

2.3.1. Exploded View

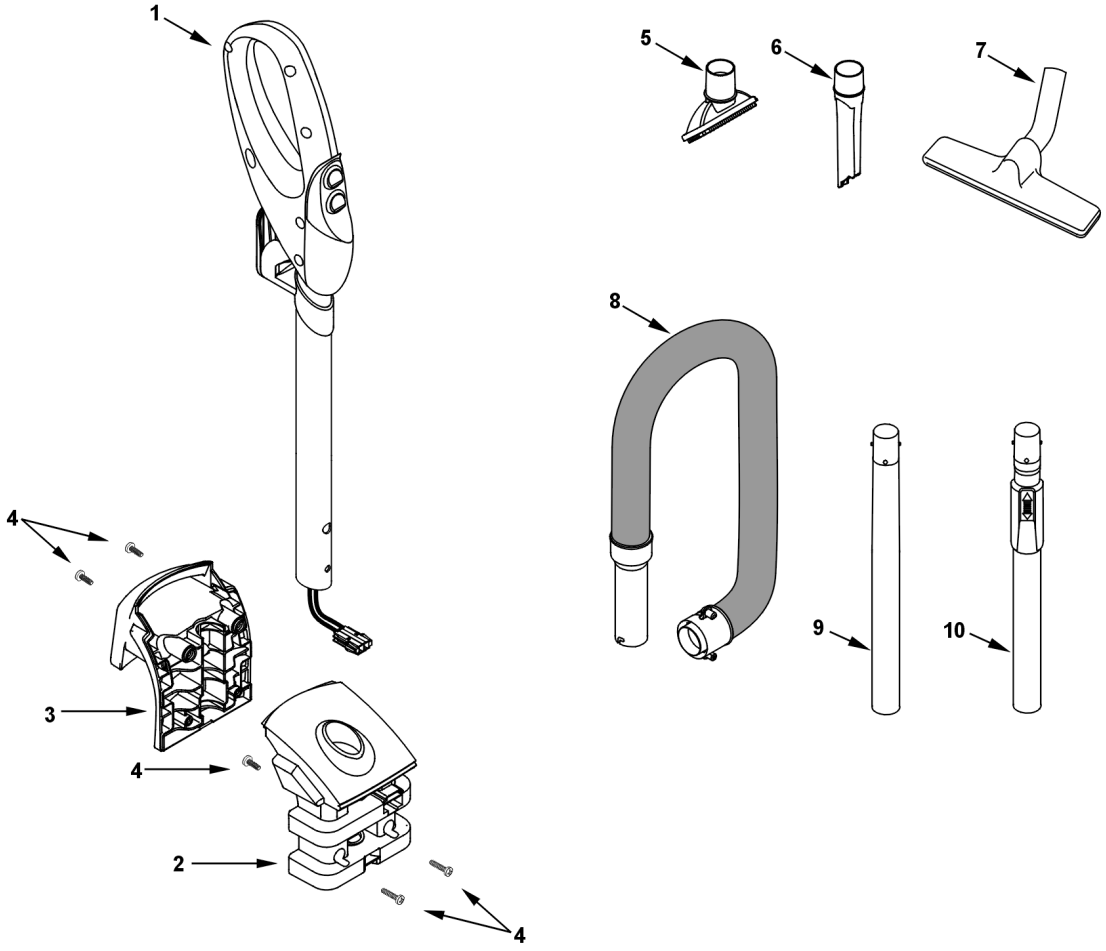


2.3.2. Parts List

Ref. No.	Part No.	Part Name & Description	Quantity	Remarks
1	AC01ADFWZGUS	NOZZLE HOUSING	1	
2	AC13DCXWZMUH	BUTTON	1	
3	AC75ACXWZ000	PACKING	1	
4	AC34PDDEZV06	NOZZLE HOSE	1	
5	AC10ACXXWZV06	FURNITURE GUARD	1	
6	AC747156	MOTOR GASKET	1	
7	AXTN4+16BFY	SCREW	11	Shipped 10 per package
8	AC26FCXWZ000	MOTOR CAP	1	
9	AC90FCAMZ000	MOTOR ASSEMBLY	1	
10	AMC43A-2V0	FRAME	1	
11	AC40RCXWZ000	FLOOR NOZZLE SPRING	1	
12	AMC742-002	MOTOR ADJUSTMENT SPRING	1	
13	AMC-1CTCE23	WIRE NUT	1	Shipped 10 per package
14	AC28SCXWZ000	BELT	1	
15	AC16CBBRZ00	ROLLER SHAFT	2	
16	AC99CCXWZV07	WHEEL	2	
17	AC76FCXWZ000	OVERLOAD PROTECTOR	1	
18	AC92SCXWZU01	AGITATOR ASSEMBLY	1	
19	AC27ACXWZV07	LOWER PLATE	1	
20	AC08DDBVZV07	NOZZLE LATCH	3	
21	AC38GDBVZ000	LEAD WIRE-BLACK	1	
22	AC43GBJAZ000	LEAD WIRE-WHITE	1	
23	AC03ACXWZV07	LOWER BODY	1	
24	AC92BDFWZ000	HANDLE RELEASE PEDAL ASSEMBLY	1	

2.4. Handle and Attachments

2.4.1. Exploded View

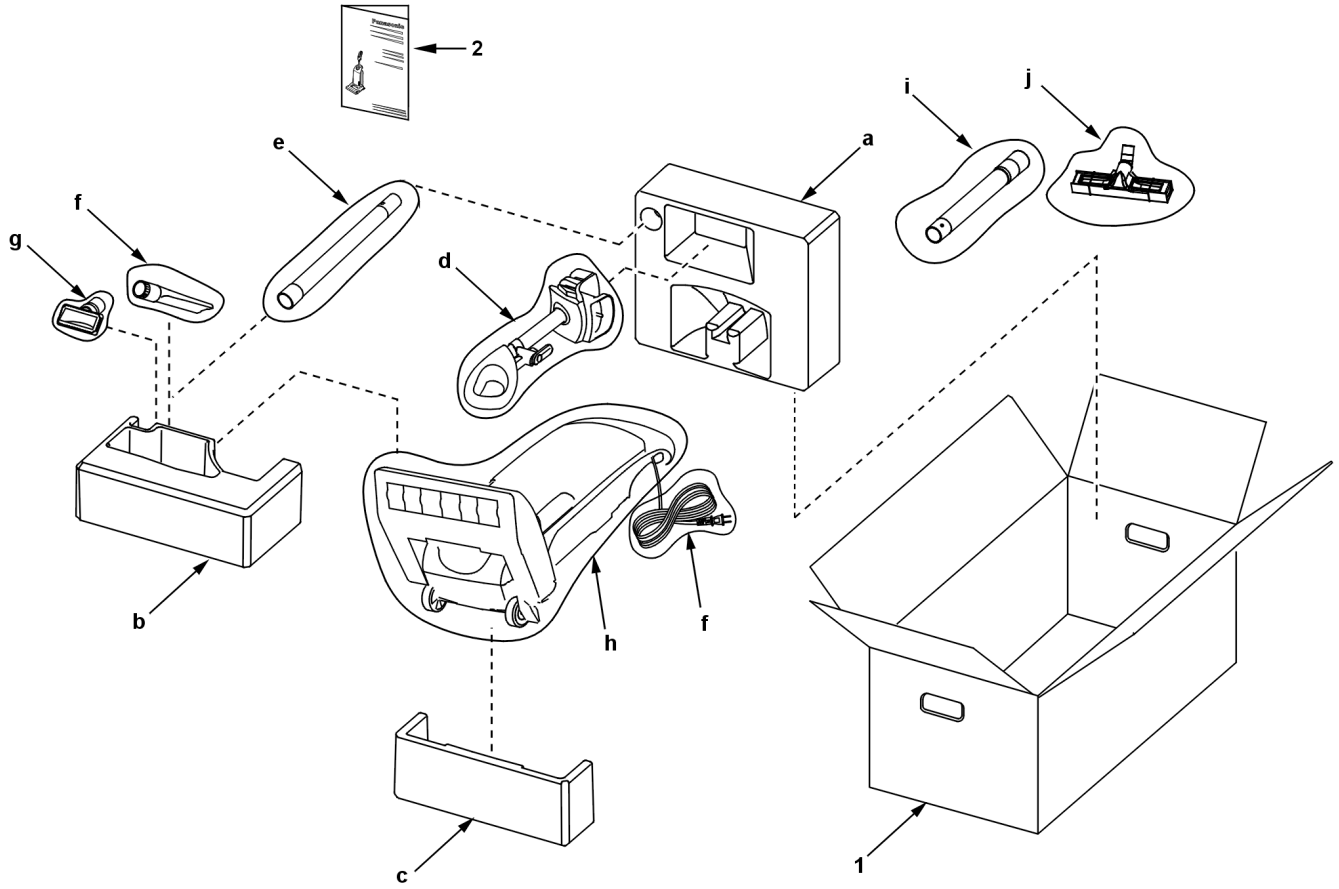


2.4.2. Parts List (Handle)

Ref. No.	Part No.	Part Name & Description	Quantity	Remarks
1	AC93BDFWZV07	HANDLE GRIP UNIT	1	
2	AC06BDFWZV07	HANDLE COVER (A)	1	
3	AC07BDDWZV07	HANDLE COVER (B)	1	
4	AXTN4+16BFY	SCREW	5	
5	AC63RDDWZV06	COMBINATION BRUSH	1	
6	AC60RCNFZV06	CREVICE TOOL.	1	
7	AC96RCSRZV06	FLOOR BRUSH	1	
8	AC84PDDWZV07	HOSE UNIT	1	
9	AC40PBRKZV06	EXTENSION WAND	1	
10	AC99PDDWZV06	EXTENSION WAND ASSEMBLY	1	

2.5. Packing Materials

2.5.1. Exploded View



2.5.2. Parts List (Packing Materials)

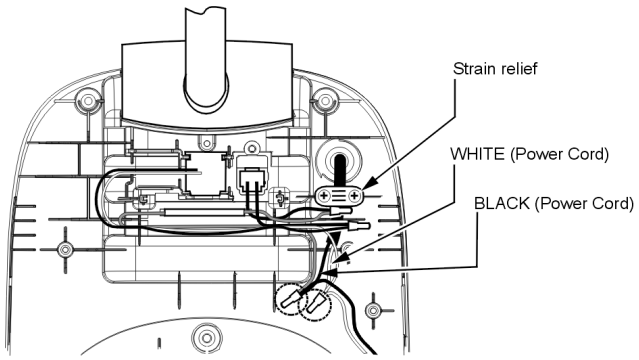
Ref. No.	Part No.	Part Name & Description	Quantity	Remarks
1	AC94ZDFWZ000	Packing Assembly	1	Includes 1 and items a thru J
2	AC01ZDFWZ000	Operating Instructions	1	

3 SERVICE PROCEDURES - BODY

3.1. Power Cord Replacement

3.1.1. Removal

1. Remove the switch cover and dust cover to expose the electrical connections of the power cord.



2. Remove the strain relief (for power cord replacement) and cut the wire connections.
3. Pull the power cord out of the dust compartment (for power cord replacement).

3.1.2. Installation

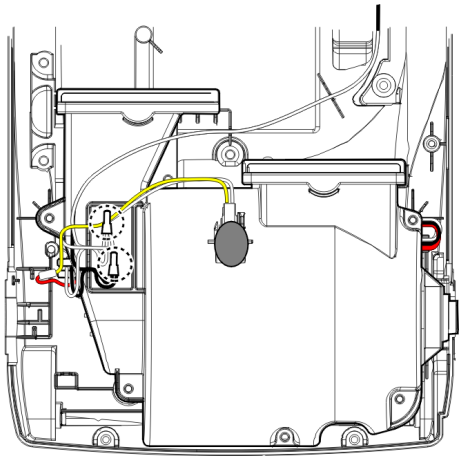
1. Insert the new power cord (power cord replacement only) into the dust compartment as far as necessary in order to place a new cord retainer in proper location on power cord. The proper location is approximately one and one eighth inches / thirty millimeters (1 1/8" / 30 mm) of new power cord outer jacket extending past the strain relief. Attach wires with wire connectors according to the wiring diagram in the front of this manual. ONLY USE A NEW STRAIN RELIEF, DO NOT REUSE A STRAIN RELIEF.
2. Replace the switch cover, the four (4) switch cover screws, and the dust cover. Care should be taken not to pinch wires and make sure that the switch cover goes on easily and stays flat. If there is resistance to the switch cover lying flat and in place, stop, remove the cover and make sure that no wires are being pinched. DO NOT USE A POWER SCREWDRIVER TO SECURE THE COVER.

NOTE: For general servicing, it is necessary to eliminate pinching of any wire during reassembly. After servicing any electrical component or electrical enclosure, the unit should be reassembled and checked for dielectric breakdown or current leakage.

3.2. Motor Replacement

3.2.1. Removal

1. Remove the switch cover and dust cover to expose the electrical connections and the motor assembly.
2. Remove the lower plate, agitator assembly, belt, and the nozzle housing as instructed in the respective removal sections.



3. Disconnect the motor leads and remove the motor assembly.
4. Remove two air outlet packing and two screws from the motor assembly to open.
5. Remove noise suppressor, motor cap, and motor flange. Save these items to place them on the new motor.

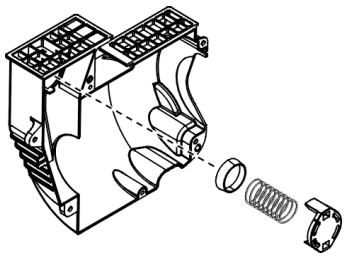
3.2.2. Installation

1. Add a new seal impeller and body packing to the new motor.
2. Assemble the noise suppressor, motor cap, and motor flange onto new motor and place it into the air guide. Secure with two screws and insert the two air outlet packing. Place the whole assembly in the dust compartment.
3. Rewire per the Pictorial Diagram.
4. Replace the nozzle housing and assemble the dust cover and switch cover.
5. Turn the vacuum back over and replace the belt, agitator assembly, and lower plate according to the respective installation instructions.

3.3. Motor Protector Replacement

3.3.1. Removal

1. Remove the motor assembly and open the motor assembly as out lined in the Motor Replacement section.



2. Using a flat screw driver remove the motor protector assembly.

3.3.2. Installation

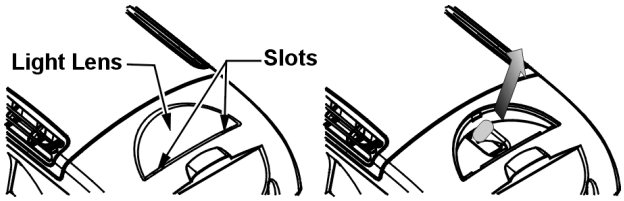
1. Install the new motor protector and reassemble the motor assembly as instructed in the Motor Replacement section.
2. Install the dust cover, switch cover, nozzle housing, belt,

agitator and lower plate as instructed in the respective removal sections.

3.4. Headlight Bulb Replacement

3.4.1. Removal

1. Using a flat screwdriver pry up light lens at slots.



2. Remove old bulb from the socket by pulling straight out.

3.4.2. Installation

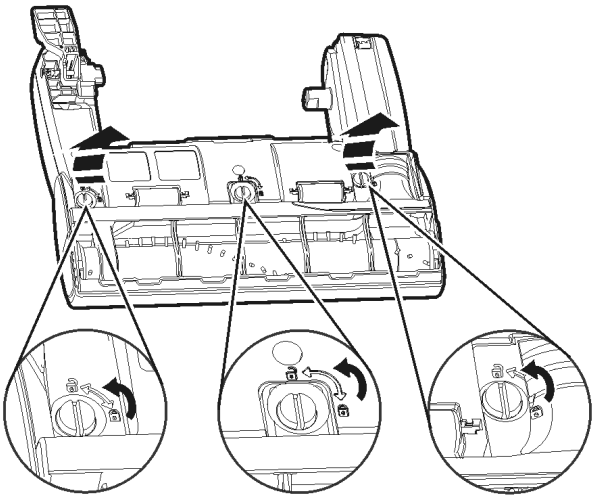
1. Install the new light bulb and replace light lens.

4 SERVICE PROCEDURES - NOZZLE

4.1. Nozzle cover

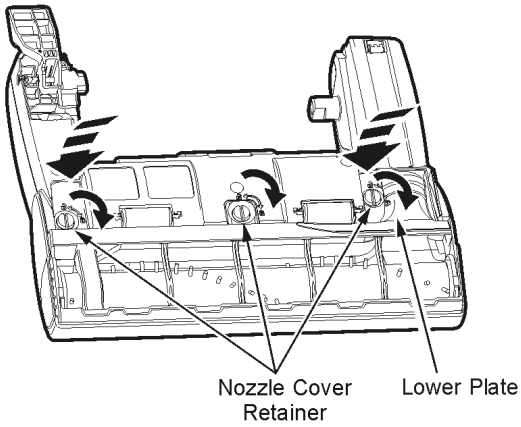
4.1.1. Removal

1. Release the nozzle cover by rotating the nozzle cover retainers to the UNLOCK position.
2. Rotate upward on the nozzle cover to remove it from the nozzle base.



4.1.2. Installation

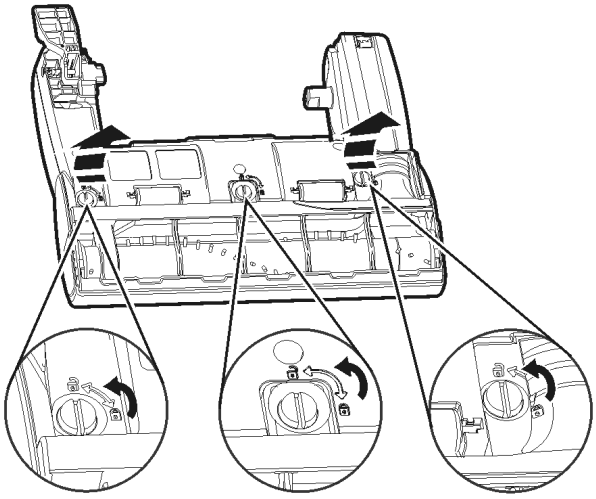
1. To replace the nozzle cover, make sure the nozzle cover retainers are in the UNLOCK position.
2. Hook the front of the nozzle cover onto the nozzle base and rotate downward.
3. Once inplace, rotate the nozzle cover retainers to the LOCK position.



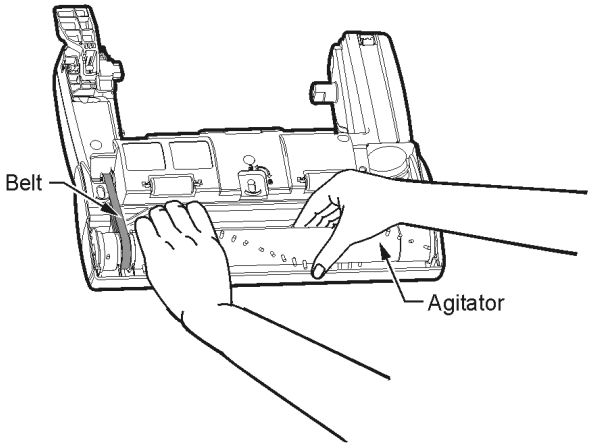
4.2. Agitator / Belt Replacment

4.2.1. Removal

1. Remove the nozzle cover (see NOZZLE COVER REMOVAL).



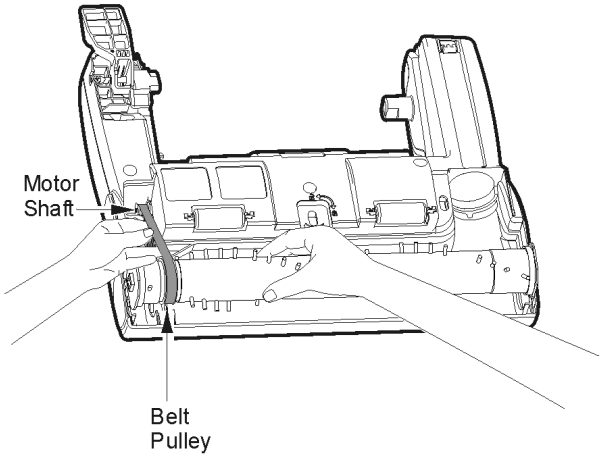
2. Disconnect power cord from electrical outlet. Press handle release pedal and tilt the handle down so cleaner is lying flat on the floor.
3. Position hands on agitator. If the belt is still attached to the agitator, there will be tension on it.
4. Carefully lift the right end of the agitator and then lift the left end.



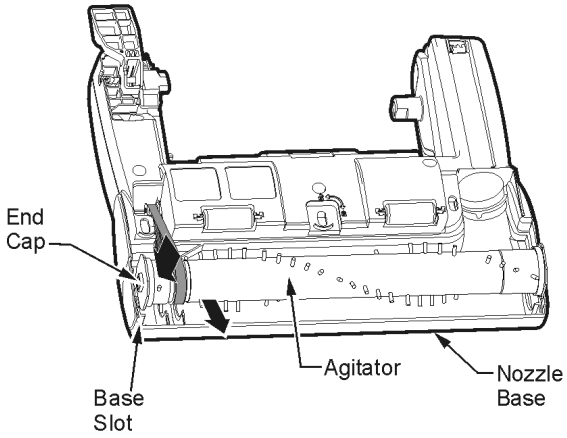
5. Remove the belt from the motor drive shaft.

4.2.2. Installation

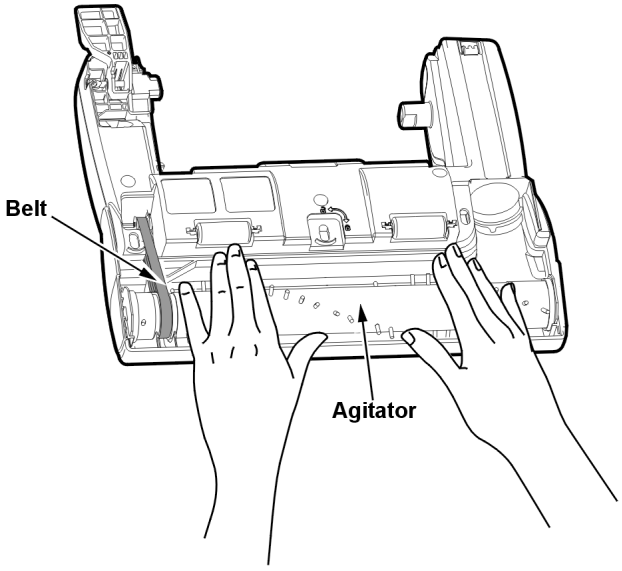
1. Reinstall new belt if necessary.
2. To replace the agitator, place the belt around the motor shaft.



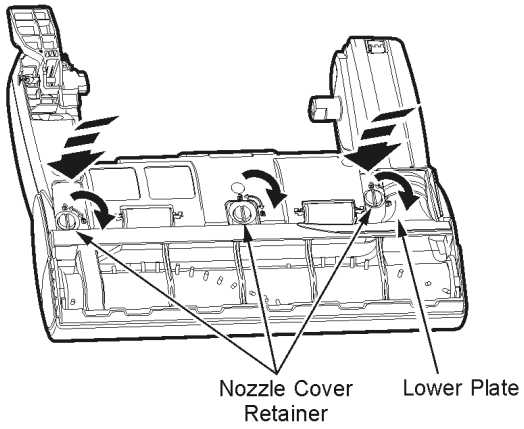
3. Loop the other end of the belt over the belt pulley on the agitator.



4. Install agitator by placing the rounded portion of the end caps down into the slots in the nozzle base.
5. Press firmly, checking to see that each end is completely inserted.
6. Check to see that the belt is centered on the belt pulley and that the agitator turns freely.



7. Replace nozzle cover (See NOZZLE COVER INSTALLATION.



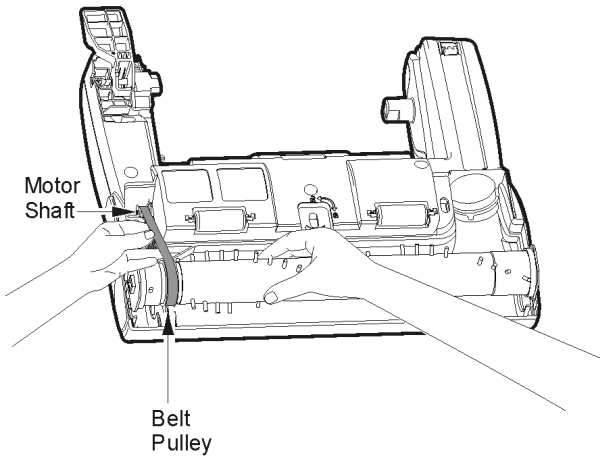
4.3. Belt

4.3.1. Removal

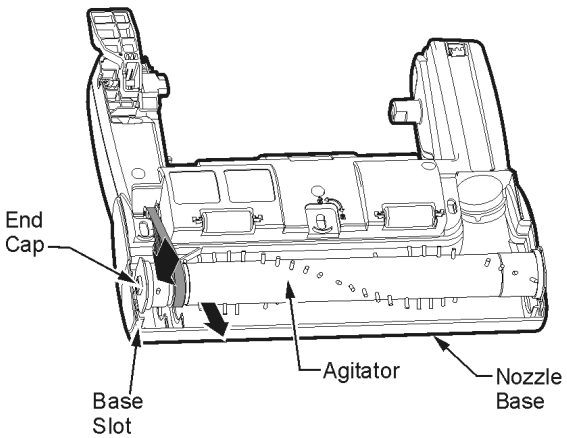
1. Remove the nozzle cover (see NOZZLE COVER REMOVAL).
2. Remove agitator (see AGITATOR REMOVAL).
3. Remove the broken or worn belt and replace with new belt.

4.3.2. Installation

1. Place new belt around the motor shaft.



2. Loop other end of belt around agitator.

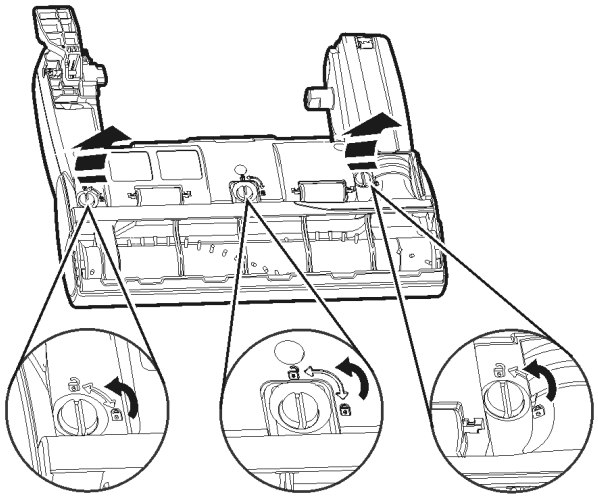


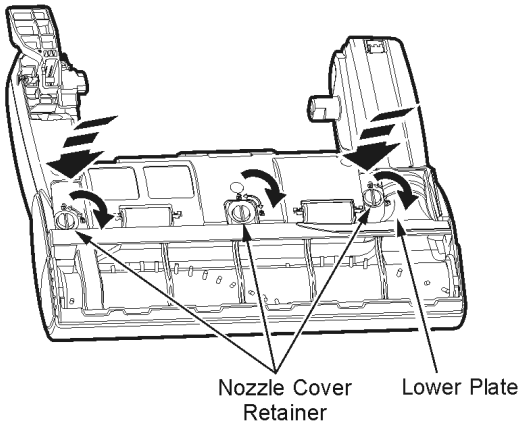
3. Replace agitator assembly (see AGITATOR REPLACEMENT).
4. Replace nozzle cover (see NOZZLE COVER REPLACEMENT).

4.4. Nozzle Motor

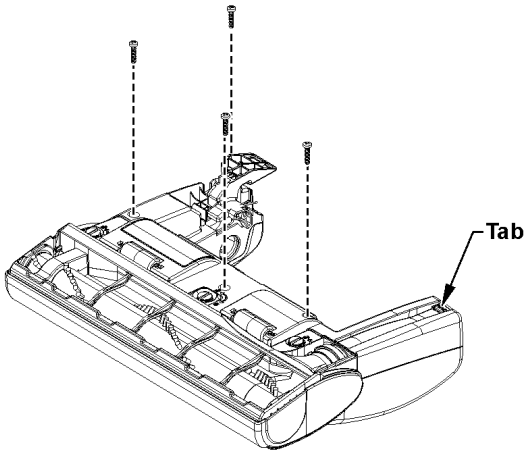
4.4.1. Removal

1. Remove the nozzle cover (see NOZZLE COVER REMOVAL).

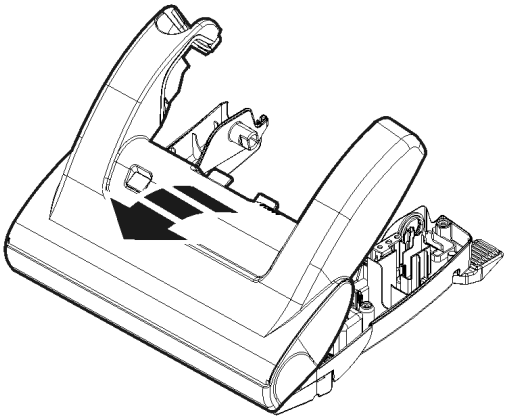




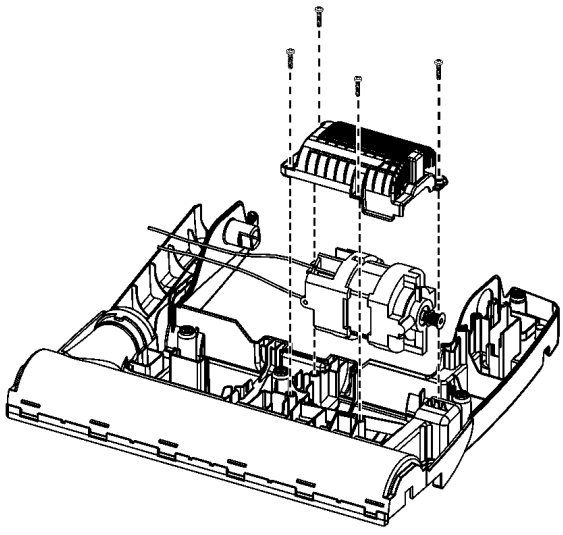
2. Remove agitator (see AGITATOR REMOVAL).
3. Remove four (4) screws from the lower body. Use a screwdriver to release the tab.



4. Turn vacuum cleaner over and separate nozzle housing from lower body.



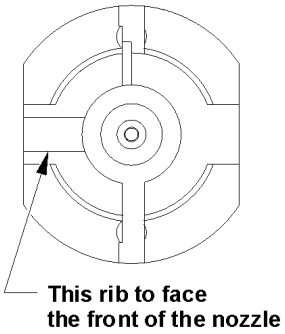
5. Remove four (4) screws from motor cap and lift off.
6. Remove nozzle motor from lower body.



7. Remove overload protector and disconnect black lead wire.
8. Cut white lead wire at crimp connector.
9. Discard motor.

4.4.2. Installation

1. Strip white jumper wire approximately 1/2”.
2. Connect white motor lead wire and white jumper wire with wire nut.
3. Connect black lead wire from motor to overload protector.
4. Install motor into lower body. Insert the motor shaft end first.



NOTE: Insure that motor adjustment spring is installed before continuing.

5. Reinstall motor cap and secure with four (4) screws.
6. Reinstall overload protector.
7. Route wires according to WIRE MANAGEMENT drawing.
8. Reinstall nozzle housing. Care should be taken not to pinch any wires.
9. Turn vacuum cleaner over.
10. Secure nozzle housing to lower body by replacing four (4) screws.
11. Reinstall agitator assembly and belt (see AGITATOR REPLACEMENT).
12. Reinstall nozzle cover (see NOZZLE COVER REPLACEMENT).

NOTE: For general servicing, it is necessary to eliminate pinching of any wire during reassembly. After servicing any electrical component or electrical enclosure, the vacuum cleaner should be reassembled and checked for dielectric breakdown or current leakage.

4.5. Overload Protector

4.5.1. Removal

1. Remove the nozzle cover (see NOZZLE COVER REMOVAL).
2. Remove agitator (see AGITATOR REMOVAL).
3. Remove four (4) screws from the lower body.
4. Turn vacuum cleaner over and separate nozzle housing from lower body.
5. Remove motor protector and disconnect lead wires.
6. Discard motor protector.

4.5.2. Installation

1. Connect lead wires to new motor protector.
2. Reinstall overload protector.
3. Route wires according to WIRE MANAGEMENT drawing.
4. Reinstall nozzle housing. Care should be taken not to pinch any wires.
5. Turn vacuum cleaner over.
6. Secure nozzle housing to lower body by replacing four (4) screws.
7. Reinstall agitator assembly and belt (see AGITATOR REPLACEMENT).
8. Reinstall nozzle cover (see NOZZLE COVER REPLACEMENT).

NOTE: For general servicing, it is necessary to eliminate pinching of any wire during reassembly. After servicing any electrical component or electrical enclosure, the vacuum cleaner should be reassembled and checked for dielectric breakdown or current leakage.